

Journal of Current Southeast Asian Affairs

Marquardt, Jens (2017), How Power Affects Policy Implementation: Lessons from the Philippines, in: *Journal of Current Southeast Asian Affairs*, 36, 1, 3–27.

URN: http://nbn-resolving.org/urn:nbn:de:gbv:18-4-10281

ISSN: 1868-4882 (online), ISSN: 1868-1034 (print)

The online version of this article can be found at: www.CurrentSoutheastAsianAffairs.org

Published by

GIGA German Institute of Global and Area Studies, Institute of Asian Studies and Hamburg University Press.

The *Journal of Current Southeast Asian Affairs* is an Open Access publication. It may be read, copied and distributed free of charge according to the conditions of the Creative Commons Attribution-No Derivative Works 3.0 License.

To subscribe to the print edition: <ias@giga-hamburg.de>
For an e-mail alert please register at: <www.CurrentSoutheastAsianAffairs.org>

The Journal of Current Southeast Asian Affairs is part of the GIGA Journal Family, which also includes Africa Spectrum, Journal of Current Chinese Affairs and Journal of Politics in Latin America: www.giga-journal-family.org.





How Power Affects Policy Implementation: Lessons from the Philippines

Jens Marquardt

Abstract: This article unveils how the complex multilevel governance system of a developing country affects environmental policy implementation. The Philippine Renewable Energy Act is discussed as an in-depth case study. The law was passed in 2008 to increase the share of renewables in the electricity mix, but its implementation remains a challenge. Analysing the complex multilevel governance system of the Philippines, this article shows how interjurisdictional coordination and the distribution of power resources and capacities affect the implementation process. This qualitative research is based on key documents and insights from 48 expert interviews. From a theoretical perspective, research about power in central—local relations can make a useful contribution to current multilevel governance concepts.

■ Manuscript received 21 July 2016; accepted 10 March 2017

Keywords: Philippines, power, multilevel governance, policy implementation, renewable energy

Dr. Jens Marquardt is a research associate and lecturer at the Institute of Political Science, Martin Luther University Halle-Wittenberg. He is also associated with the Environmental Policy Research Centre in Berlin. His main research interests include the links between environmental innovations and society, the role of power in complex governance arrangements, development theory, and sustainability transitions with a focus on Southeast Asian countries. Website: http://systemanalyse.politik.uni-halle.de>

E-mail: <jens.marquardt@politik.uni-halle.de>

Jens Marquardt

Introduction

Sustainable energy options are highly valuable, especially in emerging economies currently building up their energy systems and increasingly contributing to global climate change. The Republic of the Philippines (2015) aims to reduce its CO₂ emissions by 70 per cent by 2030 compared to business-as-usual projections. Achieving such a target depends not only on foreign aid and technology transfer, but also on governance issues. Developing countries such as the Philippines formulate highly ambitious national targets and policies for low carbon development, but often fail to fully implement legislation at the local level. This article demonstrates how issues of power and coordination in complex multilevel governance systems continue to affect the implementation of the comprehensive Philippine Renewable Energy Act.

As a tropical archipelago with high solar, wind, and geothermal potential, the Philippines has outstanding geographical conditions for developing renewable energy. Electricity prices are among the highest in Asia, which also makes renewables an economically competitive alternative to fossil fuels. Large-scale hydroelectricity and geothermal electricity plants have been providing reliable baseload capacity for decades. In 1999, renewables covered 44 per cent of the electricity demand. Driven by energy scarcity, the central government forced a top-down energy transition towards renewables to decrease its dependency on fossil fuel imports. Today, the country is struggling to further develop renewables; in 2012 their share in the electricity mix dropped to 32 per cent (DOE 2013). The Asian Development Bank (ADB 2013) predicts an even greater decrease - to 15 per cent by 2030 - due to higher fossil fuel investments and increasing energy demand. Despite these negative trends, the national government is taking substantial steps to promote decentralised renewable energy systems.

In 2008 the Congress of the Philippines passed the Renewable Energy Act, a comprehensive law incorporating various incentives for sustainable energy. The law was foreseen as a driver for decentralised, small-scale renewable energy projects and aimed to push a bottom-up process more than ever before. Yet, its implementation remains a challenging task. This article argues that the complex political system helps to explain the country's struggle to foster an energy transition. More precisely, it unveils how the complex multilevel governance system has affected the implementation of the Renewable Energy Act. Although the decentralised political system and a liberalised market could pave the way for a bottom-up energy transition, considerable progress in the electricity

sector is being prevented by a lack of coordination across jurisdictional levels, a dearth of capacities, and an oligopolistic market structure.

The Philippine case demonstrates how dynamics between different jurisdictional levels in a decentralised developing country can hamper the development of renewables. Such an observation contests the positive nexus between decentralised political structures and renewables as framed by authors such as Benz (2009), Hirschl (2008), and Ohlhorst and Tews (2013), who argue that decentralisation can foster local competition, the participation of the people, and support for environmentally friendly technologies. The struggle to fully implement the Philippine Renewable Energy Act shows that decentralisation alone does not necessarily enable renewable energy development, but that substantial efforts are needed in terms of capacity building, coordination, and exchange across jurisdictional levels. These aspects also need to be linked to issues of power.

Illustrating how problems of coordination between the national government and subnational jurisdictions as well as the fragmentation of power in a multilevel governance system pose serious obstacles to renewable energy development, this article also contributes to theoretical debates in multilevel governance research. Aspects of power are inherent to multilevel governance concepts, but scholars rarely conceptualise power explicitly. This work suggests that theoretical reflections about power in central—local relations (Rhodes 1986) can make a valuable contribution to multilevel governance research.

Methodology

Conclusions are primarily derived from 48 extensive qualitative semistructured interviews with experts from national and local governments (14 interviews), the development cooperation sector (14), renewable energy business (6), academia (5), the public energy sector (5), and civil society (4). A list of guiding questions is provided in the Appendix.

Interviews were conducted with representatives of the following organisations: government – Department of Energy (including REMB and Mindanao Field Office), Department of Science and Technology, Congress of the Philippines, Local Government Units, League of the Municipalities of the Philippines, National Renewable Energy Board; development cooperation – Deutsche Gesellschaft für Internationale Zusammenarbeit, United States Agency for International Development, Japanese International Cooperation Agency, Embassy of the United Kingdom, United Nations Development Programme, United Nations Industrial Development Programme, Kreditanstalt für Wiederaufbau, Eu-

Interview partners were selected in order to represent all major stakeholder groups and cover the main regulatory bodies in the Philippine energy sector. National and local policymakers were of particular interest. In addition, official documents and legislative texts have been reviewed.

The main rationale behind expert interviews was to get a better understanding of both the political environment vis-à-vis renewable energy policy implementation and the relevant actors' perceptions, perspectives, and narratives related to renewables. The interviews were complemented by an analysis of primary documents such as the Philippine Constitution, the Renewable Energy Act, and the Local Government Code, as well as secondary materials such as different energy scenarios, background papers, and policy briefs. Government proceedings, development outlooks, and energy plans were also examined to understand the status quo and future plans. The interviews and documents were transcribed, coded, and analysed based on qualitative data analysis (Mayring 2010) with the help of MAXQDA. In order to identify critical obstacles to renewable energy policy implementation, this research uses qualitative data analysis (Suter 2012), making it a highly reflexive process. Starting with general factors influencing renewable energy deployment, categories were narrowed down to political aspects and further specified to issues in central-local relations.

Power in Multilevel Governance Research

Multilevel governance has been widely used as a conceptual framework for investigating environmental and socio-technical innovations (Daniell, Coombes, and White 2014; Bisaro, Hinkel, and Kranz 2010; Barbosa and Brusca 2015). Studying energy transitions from a multilevel governance perspective is also not a new phenomenon. Scholars such as Smith (2006), Ohlhorst and Tews (2013), and Klagge and Asbach (2013) apply various multilevel frameworks to the field of renewable energy develop-

ropean Union Switch Programme; **business** – Thor Energy, Philippine Solar Power Association, European Chamber of Commerce of the Philippines, local electric cooperatives, Wind Energy Development Association, Winrock International; **academia** – University of the Philippines Diliman, Center for Asia Pacific Studies, Manila Observatory, Ateneo School de Manila, Development Academy of the Philippines; **public energy** – Energy Regulation Commission, National Transmission Corporation, Philippine National Oil Company, National Power Corporation, National Electrification Administration; **civil society** – Greenpeace, World Wide Fund for Nature, Oxfam, Renewable Energy Association of the Philippines.

ment. Despite the importance of power and coordination as central concepts in multilevel governance research, their explicit conceptualisation varies from approach to approach. To enhance the understanding of an "essentially contested concept" (Lukes 1995: 26) such as power, insights from power theory in central—local relations can make a useful contribution to multilevel governance research.

Coordination refers to the interactions between various administrative levels of decision-making, and incorporates patterns of consultation about responsibilities between various levels. Neglecting or overruling other actors might lead to policy failure due to local opposition, lack of accountability, or weak awareness, making coordination a highly relevant factor for the process of policy implementation. Differentiating between various jurisdictional levels is a key concept behind multilevel governance. These levels refer to political-territorial, administrative units with defined vertical hierarchies or horizontal coordination (Brunnengräber and Walk 2007: 18). Institutional arrangements, interactions, and coordination efforts all play a role in renewable energy policy implementation in the Philippines. Marks and Hooghe (2004) differentiate between two types of multilevel governance. This article follows type-I governance, where governance is organised into "nested jurisdictions [and] where there is one and only one relevant jurisdiction at any particular territorial scale" (Marks and Hooghe 2004: 16). Investigating renewable energy policy implementation requires identifying the top-down and bottom-up elements of the process, the level of participation at different levels, and the main channels of coordination.

Power, power struggles, and conflicts have long been studied in federalism and policy implementation literature. At its core, multilevel governance also "describes the dispersion of power from national central government to other levels of government [...] and non-governmental actors" (Cairney 2011: 154) and should therefore benefit from earlier reflections on power and intergovernmental relations. Rhodes (1986) developed a resource-based framework for analysing power in centrallocal relations. He makes use of a power-dependency framework by defining a local authority's dependency upon a central department "to the extent that it needs the resources controlled by the department and cannot obtain them elsewhere" (Rhodes 1986: 99). No matter how powerful a central department might be, it still depends on local authorities. To understand the relative power of interaction between central governments and local authorities, it is important to analyse "the availability, distribution and substitutability of resources" (Rhodes 1986: 100). The distribution of resources also shapes power struggles and conflicts, according to other pluralist power thinkers such as Bachrach and Baratz (1962), Gaventa (1980), and Lukes (1995). Resources are a fundamental basis not only for competition and conflicts, but also for cooperation and coalition building (Bacharach and Lawler 1980). Rhodes (1986) distinguishes between five sets of resources: constitutional-legal (formally by constitution), regulatory (administrative rules, control, enforcement), financial (taxes, grants, borrowing), political (public support, representation), and professional/informational (skills, material, land).

Going beyond the narrow focus on resource categories, Avelino (2011: 69) conceptualises power as "the capacity of actors to mobilise resources to realise a certain goal." This reframes Giddens' (1984) argument that power goes far beyond the mere existence and accumulation of resources. Investigating capacity helps to better understand how agents can or cannot make use of their power resources as categorised above (Polsby 1963). Keohane and Nye (1989) point out that the capacity of agents to achieve outcomes is not necessarily equivalent to their resources. This means that resources per se cannot foster or prevent change and thus an energy transition. Actors need to have the ability to make use of these resources to achieve a certain goal, such as the implementation of the Philippine Renewable Energy Act.

The Philippine Energy Transition and the Renewable Energy Act

Compared to its neighbouring countries Indonesia and Malaysia, the Philippines lacks significant domestic coal and oil resources. After the oil crises in the 1970s, which severely affected the country's economic development, the Philippine government developed an ambitious research and development plan to deploy its own domestic energy sources and decrease the country's dependency on crude oil imports (Lamberte and Yap 1991). Since then, energy security and independence has been high on the political agenda. The Philippines established a number of largescale hydropower and geothermal power plants and became the world's second-largest producer of geothermal electricity (Holm et al. 2010). In the mid-1980s, renewables accounted for almost half of the electricity generation. This situation changed with an increase in energy scarcity and an additional energy demand caused by economic development and electrification programmes in the late 1990s. Since the turn of the twenty-first century, most newly installed electricity capacity has come from coal (DOE 2013), and the total share of renewables is steadily decreasing in light of the government's approval of 45 additional coal power plants (Greenpeace 2014).

As in many other developing countries, renewable energy technologies in the Philippines face a variety of technical, social, and economic barriers. These include a lack of both technical infrastructure and manpower for maintaining power facilities, particularly solar; a lack of social acceptance; a high level of scepticism because of electricity cost issues and reliability concerns; and bankability issues, with high interest rates due to the status of renewables as high-risk investments (Meller and Marquardt 2013). Different frameworks address these multiple dimensions of barriers for renewables in developing countries (Wilkins 2002; Painuly 2001), but only vaguely define or fail to acknowledge the role of political factors that go beyond policies and institutions. These factors are at the core of this article.

Under pressure from international financing organisations such as the World Bank and the Asian Development Bank (Padilla 2011), the government of the Philippines (2001) passed its Electric Power Industry Reform Act (Republic Act 9136) in 2001 to liberalise the electricity sector. The law became the basis for the current electricity market which has now competitive markets that are dominated by private actors as well as regulated parts that are controlled by the government. Most electricity generation capacities outside of small power utilities have been privatised (Larona, Meller, and Marquardt 2013). Both the market design and the political system changed dramatically in the late 1980s. The end of authoritarian rule under President Ferdinand Marcos in 1986 led to a process of local empowerment and decentralisation (DILG 1991; Hutchcroft 2003), which led to the emergence of powerful local elites (Croissant 2015).

In 2008 the comprehensive Renewable Energy Act was passed after 20 years of debate in Congress. The law aims to push the development of renewables by providing a number of fiscal and non-fiscal incentives for private-sector investors (Government of the Philippines 2008). In practice, its implementation has experienced severe delays – for example, it took more than five years until the feed-in tariff scheme became the law's first fully enforced support mechanism (Bakhtyar et al. 2013). Passing the law has also not significantly pushed the development of the renewable energy sector or even threatened the dominance of fossil fuels. Between 2009 and 2010 alone, the share of renewables in the electricity-generation mix dropped from 32.6 per cent to 26.3 per cent, mainly due to additional coal power plants that entered into service in the same period (Maniego 2012).

■■■ 10 Jens Marquardt ■■■

Large parts of the Philippines suffer from electricity scarcity and blackouts due to constant annual growth in energy demand between 4.4 and 5.5 per cent (ADB 2013). Daily power cuts and limited electricity supply are common in most remote, off-grid communities (DOE 2012). The average price per kilowatt-hour is already among the highest in Southeast Asia (Suryadi 2011), and electricity costs in Manila might be the highest in Asia (Velasco 2012). The electricity mix is dominated by oil and coal, but geothermal power and hydropower contribute relatively strongly. Other renewables are of minor (biomass and wind) or negligible (solar) importance. The Asian Development Bank (ADB 2013) predicts that renewables will contribute to 15 per cent of the Philippine electricity mix by 2030. Table 1 summarises some key data from the electricity sector.

Table 1. Key Data from the Philippine Electricity Sector (2014)

Key indicator	Value
Electricity production	Coal: 33,054 GWh Natural gas: 18,690 GWh Hydro: 9,137 GWh Geothermal: 10,380 GWh Oil: 5,708 GWh Wind: 152 GWh Biofuels: 130 GWh Waste: 66 GWh Solar PV: 17 GWh
Total primary energy supply	47.673 Mtoe
Total electricity consumption	6,999 TWh
Per capita electricity consumption	0.71 MWh per capita
Total CO ₂ emissions	95.71 million metric tons of CO ₂
Total household electri- fication	79.9%

Source: IEA 2017.

The government's goal to triple its installed renewable energy capacity (15,304 MWh) by 2030 (DOE 2009) can hardly be framed as an energy transition, because the increase in overall energy demand will be largely covered by coal (ADB 2013). Renewables should contribute to energy security and independence; currently, though, they are simply adding electricity capacities rather than replacing existing ones. Non-governmental organisations address environmental issues, such as climate change (Gaillard 2010), and social aspects at the local level (health, democratisation, affordable electricity), but they play only a minor role in national political decision-making (Marquardt 2014a). Government authorities such as the Renewable Energy Management Bureau and international donors aim to push the idea of an energy transition in the Phil-

ippines, but most interview partners are more sceptical. They either doubt the likelihood of a major shift in the electricity system towards renewables or cannot observe a shift in opinions on the need for low-carbon energy (Marquardt, Steinbacher, and Schreurs 2016).

Not only relatively new renewable energy sources such as wind and solar are facing severe barriers such as a lack of infrastructure for distribution and maintenance, grid connection issues, and extraordinary high interest rates for loans, but even more conventional renewables are hardly able to expand. Whereas suitable locations for large hydro applications are limited, new geothermal plants are not being constructed, because private companies are unable or unwilling to wager the high upfront costs for exploration. Government support, institutionalised capacity, and knowledge have also been missing since the market liberalisation. Financially, coal is still perceived as a much more competitive alternative.

Promoting Renewables from a Multilevel Governance Perspective

The Philippines is a democratic, representative, and presidential republic with separate and sovereign legislative, executive, and judicial branches (Croissant 2015). The unitary state grants most regulatory power to the national government. At the same time, local autonomy is guaranteed by law (DILG 1991). Provinces are the highest administrative level below the national government, but possess relatively little political power and generally just administer and implement national government regulations. Below the provincial level, cities and municipalities possess significantly more autonomy, but most of their budget depends on the internal revenue allotment, which is controlled by the national government.

From a more historical perspective, the political system is characterised by a weak national government, but strong forms of informal policymaking. Political power has been centralised since Spanish colonial rule (1521–1898), but the administrative apparatus has remained relatively insignificant, with little direct influence at the local level. Local administrative and territorial entities were created under US occupation at the beginning of the twentieth century. Although they remained without substantial power and were not able to make autonomous decisions (Bünte 2008), a system of powerful local elites grew in the face of a weak central government. These conditions facilitated the development of patronage, clientelism, and corruption. Today, informal networks and powerful local elites shape the decision-making process (Yilmaz and Venugopal 2013).

Jens Marquardt

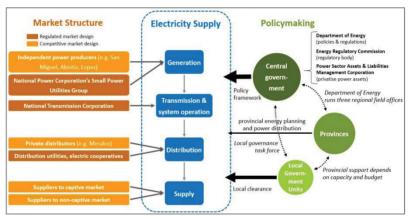
After its independence in 1946, the Philippines tried to promote a more decentralised political structure through the Local Autonomy Act (1959) and the Decentralization Law (1967), but the system was recentralised under Ferdinand Marcos's authoritarian leadership (1972–1986). In line with the constitutional promise for more local autonomy (Art. X, Section 6), the Local Government Code was passed in 1991, which significantly increased local autonomy (DILG 1991). The law provides a strong framework for local government discretion and downward accountability, but faces severe barriers concerning its actual implementation due to patronage and subservience to hierarchy.

The national Department of Energy is the dominant regulating authority over the energy sector. The ministry is responsible for energy issues, plans, laws, and programmes. Since 2002, the Electric Power Industry Management Bureau under the Department of Energy has worked on energy reforms and strategies. The Energy Regulatory Commission – an independent, quasi-judicial regulatory body – monitors compliance with laws and regulations. Electric cooperatives mainly cater to the provinces of the country. National intrusion into provincial affairs is limited and mainly coordinated through the Department of the Interior and local government instances. At the city and municipality level, local government units are in charge of local clearance and provide permits for renewable energy projects. Their actual responsibilities vary greatly from municipality to municipality depending on local resources and capacities. In 2001 the Electric Power Industry Reform Act led to a fundamental reform and restructuring of the Philippine energy sector (Abrenica 2003) and its gradual privatisation (Sharma, Madamba, and Chan 2004).

The Department of Energy is responsible for renewable energy policies and regulations. However, since market liberalisations and reforms came into effect, the national government's main task has been limited to the provision of a legal and regulatory framework. State-owned companies such as the Philippine National Oil Company and the National Power Corporation's Small Power Utilities Group are restricted to certain areas (for electrification) and find themselves in competition with private actors. The government is concentrating its efforts on building up a strong regulatory framework for renewables with incentives for private companies, but the big conglomerates' interest in small-scale renewable energy projects, especially compared to larger coal-power investments, is relatively low. The four biggest energy companies (Aboitiz, San Miguel, Lopez, George Ty) produce more than 70 per cent of the country's electricity and thus dominate the market.

Local government units play an important role when it comes to project implementation. They are responsible for local clearance and provide the necessary permits to project developers. The overall awareness of renewables varies from municipality to municipality, but is in general relatively low. Corruption patterns further increase transaction costs, especially for small-scale projects. Coordination between the Department of Energy and local authorities is either weak or non-existent. Projects are often delayed or completely fail due to a lack of exchange and communication between the national government and local authorities (Marquardt 2015). Figure 1 portrays the Philippine electricity sector from a multilevel governance perspective and reveals the complexity of the system that affects the development of renewables.

Figure 1. The Philippine Electricity Sector from a Multilevel Governance Perspective



Source: Created by the author.

The implementation of the Renewable Energy Act takes place in the context of the complex governance environment of the electricity system as shown in Figure 1. State regulators at various levels and private actors shape the process.

How Coordination Affects the Implementation of the Renewable Energy Act

Various political and socio-economic factors have affected the implementation of the Renewable Energy Act. The economic crisis in 2009, changing heads of administrations (especially within the Department of

Act.

Energy), and the high level of scepticism towards renewables are just three examples. In addition, more general issues of coordination, consultation, and interaction in the Philippine multilevel governance system need to be considered as important factors influencing the implementation of the Renewable Energy Act. Officials from the Department of Energy and energy project developers blame local authorities for problems associated with the implementation of the law, but the Renewable Energy Management Bureau at the Department of Energy also admits that it has underestimated the resistance of provincial authorities and municipalities. Local officials complained that they were not involved in the consultation process before the legislation was passed. A more serious recognition of local concerns led to the creation of a task force for local government concerns at the Department of Energy in 2013. According to the Department of Energy, the coordinating body's purpose

is to foster communication with local authorities, raise awareness of their concerns, and negotiate potential alternatives, in order to better integrate local officials into the implementation process of the Renewable Energy

The Department of Energy is also struggling to coordinate its efforts due to a lack of human and financial capacities at the provincial and municipal level. National provisions for permits and licences and for monitoring a project's eligibility for the feed-in tariff depend on the local authorities and their staff. Local capacities need to be strengthened and institutionalised in order for national provisions to be fully implemented locally and adapted to the local context. Various donor-driven interventions such as the Capacity Building to Remove Barriers to Renewable Energy Development project (CESM 2011) aimed to build up local capacity for implementing policies such as the Renewable Energy Act.

Other private and donor-driven interventions include local pilot and demonstration projects (Marquardt 2014b). Creating awareness of these activities could contribute to national-level legislation that is based on and adjusted to local experiences. In practice, exchange between local authorities and the Department of Energy is limited – also due to the country's geographical profile. The Department of Energy runs three field offices across the Philippines (in Luzon, Visayas, and Mindanao) to supervise and coordinate implementation processes, but these offices are poorly staffed. Officials claim that Manila is too far away to establish regular consultations. Additional capacity can help to increase the general knowledge about renewable energy technologies, create awareness of the benefits of renewables, and facilitate the administrative process for their development, but it cannot change the historically entrenched informal

political structures or tackle issues such as corruption and nepotism, which dominate the policymaking process at the local level at the expense of upward accountability.

Linking Power Resources to Renewable Energy Development in the Philippines

Various interview partners directly link delays, obstacles, and problems in the field of renewable energy development to the power of local authorities. Subnational actors are even perceived as critical veto players when it comes to renewable energy projects. Vice versa, local chiefs complain about not being involved in the national government's plans and projects. Although the Department of Energy has a clear constitutional mandate and strong regulatory power to implement energy-related legislations, other forms of formal and informal power resources appear to be hampering their ambitions. Applying Rhodes's (1986) differentiation between various forms of hard-power resources, the following insights can be summarised from the interviews and from key documents such as the 1991 Local Government Code:

- Constitutional power: From a constitutional perspective, implementing renewable energy policies should not be a major challenge for the national government. The Department of Energy holds a clear mandate over the country's energy system and thus over formulating and implementing policies related to renewable energy. It oversees the electricity market, but the Electric Power Industry Reform Act weakened the national government's options for direct interventions, as the act privatised electricity distribution and transmission facilities. Subordinated authorities such as the Philippine National Oil Company and the National Power Corporation have struggled to foster their own research and development agendas due to their restricted mandates.
- Regulatory power: Regulatory power regarding renewables is strongest at the national level. The Renewable Energy Management Bureau at the Department of Energy is mandated to formulate and implement rules and regulations related to renewable energy. Internal power struggles within the department have hampered the Renewable Energy Management Bureau's ambitions. Other bureaus of the department, such as the Power Bureau, favour fossil fuels and act as critical veto players vis-à-vis plans to develop renewable energy. These intra-ministerial conflicts have led to delays in policy formulation. The provincial governments have established provincial en-

ergy plans and targets, but they cannot enforce strong and binding regulations for renewables that run counter to national policies. Implementing policies and programmes largely depends on municipal authorities, despite them having little regulatory power in the energy sector.

■ Political power: Due to direct elections at every political level and a strong system of representation even in the barangays (the smallest administrative unit in the Philippines), political power is high at all levels of decision-making (Yilmaz and Venugopal 2013). Due to the vicinity of directly elected local leaders to the electorate, direct public support is strongest at the local level, which gives mayors significant political power. Together with informal patterns of clientelism, nepotism, and patronage that have developed over a long period of time, local leaders can effectively obstruct national policy implementation.

The distribution of hard-power resources alone does not say much about the actual potential for promoting or preventing the development of renewable energy in the Philippines. Such an analysis needs to include a discussion about the ability "to argue, to name and to frame" issues, as Arts and Tatenhove (2004: 340) characterise the more informal or soft forms of power resources. Based on the interviews, this ability appears to be strongest at the national level. The Renewable Energy Management Bureau, in particular, is actively lobbying for and providing information on the potential of renewable energy sources to frame their use as a means of attaining energy security, diversifying electricity, and securing supply – above all in remote, off-grid areas. Other bureaus of the Department of Energy and some members of Congress are more critical of renewables, framing wind, solar, and biomass as costly and not yet competitive sources of energy compared to fossil fuels.

Despite their weak constitutional and regulatory power, the provincial governments can exercise significant soft power when it comes to fundamental decisions related to renewables. Developments in the province of Palawan can be taken as an example: the provincial government announced its ambitious plan to switch to 100 per cent renewables, and local resistance prevented the construction of a coal power plant (Ranada 2013). The municipalities' ability to put renewables on the agenda in general is relatively weak, although some frame it as a beneficial alternative form of energy. Local debates are framed by more general arguments from nationwide discourses. This situation poses a challenge to decentralised small-scale renewables, because positive local economic

and environmental effects are overshadowed by national (cost) arguments.

Understanding the distribution of hard- and soft-power resources in the electricity sector still does not necessarily explain how power affects renewable energy development and policy implementation. Such an argument needs to include the actual ability of actors to make use of their power resources in order to achieve a certain goal (capacity).

- Availability of information: Most technical capacity and expertise related to renewables is concentrated at the national level - mostly through coordinating bodies such as the Renewable Energy Management Bureau and regulators such as the Energy Regulatory Commission and the National Power Corporation. The picture looks different at the local level, where a lack of data and knowledge about renewables hinders relevant authorities to handle or even initiate renewable energy projects. Relevant information for renewables (on electricity supply, planning, land use, and so on) is often accumulated at the provincial level, but local authorities struggle to provide this information to project developers. Compared to established fossil fuels, renewables need stronger advocacy and awarenessraising campaigns to be championed by local decision makers. Strong ties between the dominant energy conglomerates and local political elites also consolidate the popularity of rather large coalpower developments.
- Technical expertise and personnel: The lack of local knowledge is closely related to the limited availability of (trained) personnel. Whereas national staff are often trained in renewable energy issues, local authorities lack the manpower and educational background to promote renewables. Professionalism in terms of renewable energy also varies from region to region depending on the economic power of provinces, municipalities, and cities. In general, local authorities lack the skills and materials to implement the central government's policies related to renewable energy.
- Financial capacities: Financial capacities are scarce at subnational levels. Municipalities are able to collect various forms of taxes, but their revenues remain limited (DILG 1991). National policies and regulations set the limits for tax rates. The situation is similar at the provincial level. The provinces depend on income and other tax revenues from the national level. Such a dependency structure institutionalises the historically developed system of patronage, which is prone to abuse and corruption. Local officials complain about little

financial support, but are also being accused of being corrupt or introducing taxes that run counter to national legislation.

Although the Department of Energy is the main regulatory body in the energy sector, the actual power is distributed across different administrative levels. Figure 2 summarises the qualitative analysis on the role of power in promoting renewables in the Philippines from a multilevel governance perspective by illustrating the distribution of hard-power resources, soft-power resources, and capacities at the national, provincial, and municipal level. This situation and the informal patterns of political decision-making need to be considered by the Renewable Energy Management Bureau when implementing policies such as the Renewable Energy Act.

The more fields filled out, Renewable Energy the higher the level's Management Bureau power or capacity. National Hard power resources govern Constitutional power Regulatory power Political power Soft power resources Agenda setting Framing Munici-Capacities nalities law **Enforcement** Financial capacity Trained staff Knowledge / expertise

Figure 2. Distribution of Power Resources and Capacities for Renewables in the Philippines

Source: Created by the author.

18

The Philippine Local Government Code (DILG 1991) has strengthened subnational authorities and their autonomy in the decision-making process. The law limits national intervention at the local level. This should enable lower levels of government, particularly provincial governments, to experiment with renewables and foster a bottom-up development. However, the potential for success of such an approach remains unsure as long as subnational authorities are not capable of fostering such a process due to fragmented power resources or missing capacities. Although the Local Government Code has shifted substantial constitutional

and regulatory power to the local level, it has not added financial or personal capacities that could help local authorities to fully use their power.

How Fragmented Power Affects Policy Implementation on Renewable Energy

Various power resources and capacities are fragmented and distributed unevenly across different levels. The challenging implementation process of the Renewable Energy Act demonstrates how issues of power heavily continue to delay the enforcement of a comprehensive policy framework for renewables in the Philippines.

The Renewable Energy Act reveals a dilemma between its target and the actual process of implementation: On the one hand, it aims to enhance decentralised energy supply and promote local small-scale renewable energy developers, manufacturers, and suppliers

by institutionalizing the development of national and local capabilities in the use of renewable energy systems, and promoting its efficient and cost-effective commercial application by providing fiscal and non-fiscal incentives. (Government of the Philippines 2008)

Among other incentives, special ones for renewable energy host communities (local government units) are outlined. On the other hand, the Department of Energy as "the lead agency mandated to implement the provisions" (Government of the Philippines 2008) of the law follows a clear top-down approach with little attention to local circumstances and capacities.

The Renewable Energy Management Bureau is confronted with power-related conflicts in the multilevel governance system both vertically and horizontally. At the national level, competing bureaus at the Department of Energy act as potential veto players when criticising proposed rules and regulations for renewables – both internally and before the public. The Power Bureau is framed as the Renewable Energy Management Bureau's most prominent and powerful counterpart within the Department of Energy. At the local level, the Renewable Energy Management Bureau aims to promote off-grid renewable energy development by supporting small-scale renewable energy projects, but private project developers are unable or unwilling to invest due to the factual power of local authorities (responsible for licences and permits), high transaction costs (local corruption, high-risk investment), and an unclear division of responsibilities between local bureaucracies. These power-related aspects are beyond the national government's control.

Jens Marquardt

Concerning the role of soft-power resources, the situation has changed since the Renewable Energy Act was passed in 2008. Up until then, a broad and grassroots-based renewable energy coalition had pushed the national government to promote renewables, framing them as indigenous forms of energy. Today, the national debate about high electricity prices dominates a general scepticism towards renewables, which are perceived to be expensive and technologically risky. Local officials have taken up and reframed this perception. Changing their mindsets and attitudes towards renewables would require a lot of effort, as fossil fuels are perceived to be secure and reliable. Corruption further increases the price per kilowatt-hour, especially for numerous small-scale projects compared to a single large coal-power plant. Alongside international donors, the Renewable Energy Management Bureau frames renewable energy as an environmentally friendly and economically viable alternative to diesel generation in remote, off-grid areas.

From a capacity perspective, the Renewable Energy Management Bureau is considered to hold the key knowledge and expertise to implement the Renewable Energy Act. The bureau oversees the country's renewable energy project development, but lacks the financial and human capacities necessary to implement the process. At the provincial level, trained staff and technical expertise are rare; the availability of resources depends on project developers. Municipalities even claim to have no expertise at all in monitoring or supporting renewable energy projects. A United Nations project on capacity building already tackled these issues (CESM 2011), but did not lead to structural improvements. Additionally, financial capacities from tax revenues (for example, for rural development) are limited at the local level, due to constitutional constraints.

While most interview partners agreed on the general lack of interjurisdictional coordination and capacity for effective policy implementation, there was also some disagreement. Private companies requested more room for private-sector involvement in combination with financial incentive schemes. In contrast, many government officials and civil society organisations described the need for more active government intervention. Whereas some environmental organisations advocated a transition from fossil fuels to renewable energy, renewables were predominantly framed as a complement to, but not a replacement for, coal as the dominant source for baseload capacity. Finally, national government officials, representatives from the realm of development cooperation, and private actors all stressed the need for a strong top-down approach to implement a robust regulatory framework for renewables – in contrast

to most academics and civil society representatives, who argued for a bottom-up strategy.

Recommendations and Conclusion

The Philippine case illustrates how coordination and power relations in multilevel governance systems affect renewable energy policy implementation. The country successfully developed large-scale renewable energy projects after the oil crises in the 1970s, but is struggling to implement its modern and comprehensive Renewable Energy Act. A process of decentralisation, local empowerment, and market liberalisation led to new institutional arrangements and responsibilities across various levels. Newly established and contested power constellations as well as coordination gaps are hampering the implementation of renewables in the decentralised political system.

Coordination across jurisdictional levels is key to renewable energy development. National energy planning as proposed by the National Economic and Development Authority and the Department of Energy fails to adequately consider local conditions. In contrast, local authorities are either incapable of or unwilling to fully support renewable energy. Key stakeholders such as the Renewable Energy Management Bureau claim that a lack of both law enforcement and coordination with strong local authorities are the main reasons for the massive delays in the implementation of the Renewable Energy Act, whereas local authorities blame the national government. Policy implementation is even more challenging because of a considerable fragmentation of power resources and capacities. Corruption on the part of local actors can lead to projects being blocked or their costs increasing. At the same time, subnational authorities are struggling to initiate a bottom-up process because of professional constraints and their dependency on national funding. The Department of Energy is often not fully aware of the lack of necessary capacities at the local level.

In debates about energy transitions in developing countries, powerrelated governance issues are often underestimated or omitted. Three main recommendations for policymakers, project developers, and researchers who aim to foster energy transitions towards renewables in developing countries are as follows:

 Project developers should follow a programmatic approach that reflects the complexity of governance structures. Although clean energy projects have been implemented successfully over decades, Jens Marquardt

their sustainable operation is a challenging task and a highly complex issue that goes far beyond the scope of a single development project. Establishing a wind farm or a solar mini-grid might be technologically manageable and economically feasible on paper, but ensuring supportive political conditions for renewables is an ongoing struggle across multiple jurisdictional levels.

- 2. Coordination across different levels and the distribution of power in complex governance arrangements need to be considered more seriously. Researchers and project developers alike can use the power-based multilevel governance approach as an assessment, monitoring, and evaluation tool to gauge interventions. The approach could also be fruitful for multilevel governance scholars.
- 3. Local inclusion and capacity building are vital to effective policy implementation. Local authorities play an important role in implementing, sustaining, and blocking any project or policy, but only few efforts are made to include local authorities at an early stage of planning and build up the capacities they need to institutionalise upscaling or learning effects. The Renewable Energy Management Bureau cannot change the political landscape, but it can facilitate coordination and capacity building for local staff that goes beyond the minimum level of training on renewable energy.

Energy-transition scholars have urged researchers to better acknowledge and more explicitly conceptualise power relations when analysing sociotechnical transitions (Smith and Stirling 2005; Avelino 2011). A clearer understanding of power can also help to make the highly diversified and broadly defined multilevel governance framework more practically applicable to specific contexts (Benz et al. 2007: 297). Classical research on power, resources, and capacities in central—local relations can help us to understand and better analyse the complexity of transition processes and their link to power struggles and conflicts. The challenging process of policy implementation in the Philippines has demonstrated that interjurisdictional coordination and the distribution of power need to be considered more seriously when talking about energy transitions in developing countries.

References

- Abrenica, J. V. (2003), Contracting for Power: The Philippine Case, Tokyo: Asian Development Bank Institute.
- ADB (2013), Energy Outlook for Asia and the Pacific, Manila: Asian Development Bank.
- Arts, B., and J. van Tatenhove (2004), Policy and Power: A Conceptual Framework between the "Old" and "New" Policy Idioms, in: *Policy Sciences*, 37, 3–4, 339–356.
- Avelino, F. (2011), Power in Transition. Empowering Discourses on Sustainability Transitions. Erasmus University Rotterdam.
- Bacharach, S. B., and E. J. Lawler (1980), Power and Politics in Organizations, London: Jossey-Bass.
- Bachrach, P. M., and S. Baratz (1962), Two Faces of Power, in: *The American Political Science Review*, 56, 4, 947–952.
- Bakhtyar, B. et al. (2013), Potentials and Challenges in Implementing Feed-In Tariff Policy in Indonesia and the Philippines, in: *Energy Policy*, 60, 418–423.
- Barbosa, A., and I. Brusca (2015), Governance Structures and Their Impact on Tariff Levels of Brazilian Water and Sanitation Corporations, in: *Utilities Policy*, 34, 94–105.
- Benz, A., S. Luetz, U. Schimank, and G. Simonis (eds) (2007), Handbuch Governance. Theoretische Grundlagen und empirische Anwendungsfelder, Wiesbaden: VS Verlag für Sozialwissenschaften.
- Benz, Arthur (2009), *Politik in Mehrebenensystemen*, Wiesbaden: VS Verlag für Sozialwissenschaften.
- Bisaro, A., J. Hinkel, and N. Kranz (2010), Multilevel Water, Biodiversity and Climate Adaptation Governance: Evaluating Adaptive Management in Lesotho, in: *Environmental Science and Policy*, 13, 7, 637–647.
- Brunnengräber, A., and H. Walk (2007), Multi-Level-Governance. Klima-, Umwelt- und Sozialpolitik in einer interdependenten Welt, Baden Baden: Nomos.
- Bünte, M. (2008), Dezentralisierung und Demokratie in Südostasien, in: *Zeitschrift für Politikwissenschaft*, 18, 1, 25–50.
- Cairney, P. (2011), *Understanding Public Policy. Theories and Issues*, Hampshire, New York: Palgrave Macmillan.
- CESM (2011), Final Evaluation of the GEF/ UNDP/DOE Philippines: Capacity Building to Remove Barriers to Renewable Energy Development (CBRED) Project, Manila: Center for Environmental Studies and Management.
- Croissant, A. (2015), *Die politischen Systeme Südostasiens*, Wiesbaden: VS Verlag für Sozialwissenschaften.

Daniell, K. A., P. J. Coombes, and I. White (2014), Politics of Innovation in Multi-Level Water Governance Systems, in: *Journal of Hydrology*, 519, 2415–2435.

- DILG (1991), *The Local Government Code of the Philippines*, Manila: Philippine Department of the Interior and Local Government.
- DOE (2013), *Philippine Power Statistics 2012*, Philippine Department of Energy, online: <www.doe.gov.ph/electric-power-statistics/philippine-power-statistics> (30 March 2015).
- DOE (2012), 2012-2016 Missionary Electrification Development Plan (2012 MEDP), Manila: Philippine Department of Energy.
- DOE (2009), Highlights of the 2009-2030 Philippine Energy Plan, Manila: Philippine Department of Energy.
- Gaillard, J. C. (2010), Vulnerability, Capacity and Resilience: Perspectives for Climate and Development Policy, in: *Journal of International Development*, 22, 2, 218–232.
- Gaventa, J. (1980), Power and Powerlessness Quiescence and Rebellion in an Appalachian Valley, Urbana, Chicago: University of Illinois Press.
- Giddens, A. (1984), *The Constitution of Society. Outline of the Theory of Structuration*, Cambridge: Polity Press.
- Government of the Philippines (2008), An Act Promoting the Development, Utilization, Commercialization and of Renewable Energy Resources and for other Purposes. Republic Act No. 9513, Manila.
- Government of the Philippines (2001), An Act Ordaining Reforms in the Electric Power Industry, Amending for the Purpose Certain Laws and for Other Purposes. Republic Act No. 9136., Manila.
- Greenpeace (2014), True Cost of Coal in the Philippines, Quezon City: Greenpeace.
- Hirschl, B. (2008), Erneuerbare Energien-Politik: Eine Multi-Level Policy-Analyse mit Fokus auf den deutschen Strommarkt, Wiesbaden: VS Verlag für Sozialwissenschaften.
- Holm, Alison, Leslie Blodgett, Dan Jennejohn, and Karl Gawell (2010), Geothermal Energy: International Market Update, May, Geothermal Energy Association.
- Hutchcroft, P. (2003), Paradoxes of decentralization: the political dynamics behind the 1991 Local Government Code of the Philippines, in: M. Nelson (ed.), KPI Yearbook 2003, Bangkok: King Prajadhipok's Institute, 283–332.
- IEA (2017), *Philippines: Indicators for 2014*, International Energy Agency Statistics, online: <www.iea.org/statistics/statisticssearch/report/?product=Indicators&country=PHILIPPINE> (30 January 2017).

- Keohane, R. O., and J. S. Nye (eds) (1989), *Power and Interdependence. World Politics in Transition*, Glenview: Scott Foresman and Company.
- Klagge, B., and C. Asbach (eds) (2013), Governance-Prozesse für erneuerbare Energien, Hannover: Akademie für Raumforschung und Landesplanung.
- Lamberte, M. B., and J. T. Yap (1991), *The Impact of the Gulf Crisis on the Philippine Economy*, Manila: Philippine Institute for Development Studies.
- Larona, F., H. Meller, and J. Marquardt (2013), Renewable Energies for Offgrid Power Generation in the Philippines. Avenues and Examples for Private Sector Participation in the Off-grid Power Sector, Manila: Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH.
- Lukes, S. (1995), Power: A Radical View, London: Longman.
- Maniego, P. H. (2012), There's more renewables in the Philippines, in: C. Morris and M. Pehnt (eds), *Energy Transition. The German Energiewende*, Berlin: Heinrich Böll Foundation, 127–129.
- Marks, G., and L. Hooghe (2004), Contrasting Visions of Multi-level Governance, in: I. Bache and M. Flinders (eds), *Multi-level Governance*, Oxford: Oxford University Press, 15–30.
- Marquardt, J. (2015), The Power to Change? How Multi-level Governance Structures Affect Renewable Energy Development in Southeast Asia, Dissertation, Freie Universität Berlin.
- Marquardt, J. (2014a), Energiewende Made in Germany? Konstruktion und Bedeutung eines energiepolitischen Nationenimages, in: Zeitschrift für Umweltpolitik & Umweltrecht, 37, 1, 78–95.
- Marquardt, J. (2014b), How Sustainable are Donor-driven Solar Power Projects in Remote Areas?, in: *Journal of International Development*, 26, 6, 915–922.
- Marquardt, J., K. Steinbacher, and M. Schreurs (2016), Driving Force or Forced Transition? The Role of Development Cooperation in Promoting Energy Transitions in the Philippines and Morocco, in: *Journal of Cleaner Production*, 128, 22–33.
- Mayring, P. (2010), *Qualitative Inhaltsanalyse. Grundlagen und Techniken*, Weinheim & Basel: Beltz.
- Meller, H., and J. Marquardt (2013), Renewable Energy in the Philippines: Costly or Competitive? Facts and Explanations on the Price of Renewable Energies for Electricity Production, Manila: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.
- Ohlhorst, D., and K. Tews (2013), Energiewende als Herausforderung der Koordination im Mehrebenensystem, in: *Technikfolgenabschätzung Theorie und Praxis*, 22, 2, 48–55.

Padilla, A. J. (2011), The Role of Foreign Lenders, Investment Banks, and Credit Rating Agencies in Philippine Power Sector Reform. A Radical's Nut: Notes on Philippine Economy and Politics, online: https://arnoldpadilla.wo rdpress.com/2011/06/13/the-role-of-foreign-lenders-investment-b anks-and-credit-rating-agencies-in-philippine-power-sector-reform> (8 February 2015).

- Painuly, J. P. (2001), Barriers to Renewable Energy Penetration: A Framework for Analysis, in: *Renewable Energy*, 24, 1, 73–89.
- Polsby, N. W. (1963), *Community Power and Political Theory*, New Haven: Yale University Press.
- Ranada, P. (2013), Palawan Aims for a 100% Renewable Energy Future, in: Rappler, online: wer-and-energy/41998-palawan-renewable-energy-plan (29 May 2015).
- Republic of the Philippines (2015), Intended Nationally Determined Contributions, UNFCCC.
- Rhodes, R. A. W. (1986), *Control and Power in Central-Local Government Relations*, Aldershot: Gower Publishing Company.
- Sharma, D., S. E. Madamba, and M. R. L. Chan (2004), Electricity Industry Reforms in the Philippines, in: *Energy Policy*, 32, 13, 1487–1497.
- Smith, A. (2006), Multi-level Governance: Towards an Analysis of Renewable Energy Governance in the English Regions, University of Sussex.
- Smith, A., and A. Stirling (2005), Social-ecological Resilience and Socio-Technical Transitions: Critical Issues for Sustainability Governance, Brighton: STEPS Centre.
- Suryadi, B. (2011), Electrical Tariff in ASEAN Member Countries, in: *TalkEnergy*, online: http://talkenergy.files.wordpress.com/2011/0/2/asean-electricity-tariff-2011.pdf (29 April 2013).
- Suter, W. Newton (2012), Qualitative Data, Analysis, and Design, in: W. Newton Suter, *Introduction to Educational Research. A Critical Thinking Approach*, Sage Publications, 342–386.
- Velasco, M. M. (2012), Manila Power Rates Asia's Highest, in: *Tempo News*, online: <www.tempo.com.ph/2012/03/manila-power-rates-? -asias-highest> (29 May 2015).
- Wilkins, G. (2002), Technology Transfer for Renewable Energy: Overcoming Barriers in Developing Countries, New York: Earthscan.
- Yilmaz, S., and V. Venugopal (2013), Local Government Discretion and Accountability in the Philippines, in: *Journal of International Develop*ment, 25, 2, 227–250.

Appendix

Guiding Question for Expert Interviews

A - Introduction A1 What is your personal background (institution, function, area of activity)? A2 What is your personal relation to renewables in the Philippines? B - Situation of renewables in the Philippines B1 What are key driving forces of / main barriers to renewables in general? B2 What are the relevant/dominant actors in the Philippine electricity sector? B3 How would you describe the role of renewables in the electricity supply? C - Decentralisation, multilevel perspective, and power C2 How do the national government and subnational authorities shape renewable energy development [specify: provincial level, district level, village level]? C2 How do actors at different levels coordinate renewable energy initiatives? C3 How are resources and capacities distributed across	Interview section	Guiding questions
Philippines? B - Situation of renewables in the Philippines B1 What are key driving forces of / main barriers to renewables in general? B2 What are the relevant/dominant actors in the Philippine electricity sector? B3 How would you describe the role of renewables in the electricity supply? C - Decentralisation, multilevel perspective, and power C2 How do the national government and subnational authorities shape renewable energy development [specify: provincial level, district level, village level]? C2 How do actors at different levels coordinate renewable energy initiatives? C3 How are resources and capacities distributed across	A - Introduction	A1 What is your personal background (institution, function, area of activity)?
renewables in the Philippines B2 What are the relevant/dominant actors in the Philippine electricity sector? B3 How would you describe the role of renewables in the electricity supply? C - Decentralisation, multilevel perspective, and power C2 How do the national government and subnational authorities shape renewable energy development [specify: provincial level, district level, village level]? C2 How do actors at different levels coordinate renewable energy initiatives? C3 How are resources and capacities distributed across		Philippines?
Philippine electricity sector? B3 How would you describe the role of renewables in the electricity supply? C - Decentralisation, multilevel perspective, and power C2 How do the national government and subnational authorities shape renewable energy development [specify: provincial level, district level, village level]? C2 How do actors at different levels coordinate renewable energy initiatives? C3 How are resources and capacities distributed across		
electricity supply? C - Decentralisation, multilevel authorities shape renewable energy development [specify: provincial level, district level, village level]? C2 How do actors at different levels coordinate renewable energy initiatives? C3 How are resources and capacities distributed across	Philippines	,
multilevel perspective, and power authorities shape renewable energy development [specify: provincial level, district level, village level]? C2 How do actors at different levels coordinate renewable energy initiatives? C3 How are resources and capacities distributed across		· · · · · · · · · · · · · · · · · · ·
C3 How are resources and capacities distributed across	multilevel perspective, and	authorities shape renewable energy development [specify: provincial level, district level, village level]?
analytical framework]?		C3 How are resources and capacities distributed across different jurisdictional levels [specify according to
C4 How does the population take part in renewable energy development?		C4 How does the population take part in renewable
D - Renewable D1 What factors led to the formulation of the 2008		
Energy Act Renewable Energy Act? D2 What are the key barriers to implementing the 2008 Renewable Energy Act?	Energy Act	D2 What are the key barriers to implementing the 2008
D3 How do national and subnational authorities coordinate with each other to implement the Renewable		D3 How do national and subnational authorities
Energy Act?		1
D4 What actors are powerful enough to foster or prevent the implementation of the 2008 Renewable Energy Act [specify "powerful" by applying the categories used in the analytical framework]?		the implementation of the 2008 Renewable Energy Act [specify "powerful" by applying the categories used in the
E - Closing E1 What is needed to further promote renewable energy questions in the Philippines (barriers)?		1
E2 Can you recommend any further interview partner for this research?		E2 Can you recommend any further interview partner for